

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Paul J. Coleman, et al.



Serial No. 10/567,676

Filed: February 9, 2006

For: MITOTIC KINESIN INHIBITORS

Art Unit: To be determinedExaminer: To be determined

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR 1.97**

Sir:

1. In compliance with 37 C.F.R. 1.97, submitted on the attached form herewith is a list of patents, publications or other information which are requested to be made of record in this application. This Information Disclosure Statement is not an admission that any patent, publication or other information referred to herein is "prior art" for this invention. In accordance with 37 C.F.R. 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56(b).
2. In accordance with 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.
3. Applicants respectfully request that the Examiner initial the attached form after reviewing the pertinence of each reference.
4. Pursuant to 37 C.F.R. 1.98 (a)(2)(ii), copies of each cited U.S. patent and each U.S. patent application publication are not enclosed herewith.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the date appearing below.

MERCK &amp; CO., INC.

By \_\_\_\_\_

Date 7/14/06



# INFORMATION DISCLOSURE STATEMENT

5. Pursuant to 33 C.F.R. 1.98(d), copies of references listed on the attached form that were submitted to or cited

by the Office in a related application upon which the instant application relies for an earlier filing date under 35 U.S.C. 120 are not enclosed. Related application(s) in which references were submitted to or cited by the Office are as follows:

If this is inconvenient, additional copies will be submitted upon request.

6. In accordance with 37 C.F.R. 1.97, (check one)

- the attached information is filed within three months of the filing date of the captioned case.
- the attached information is filed more than three months after the filing date but prior to the mailing of a first Office Action on the merits.
- the attached information is filed before the mailing of a first Office action after the filing of a request for continued examination under §1.114.
- the attached information is being filed more than three months after the filing date and after the mailing of a first Office Action on the merits, but before the mailing date of a Final Action, Notice of Allowance, or an action that otherwise closes prosecution in the application. The enclosed authorization is therefore given to charge Deposit Account No. 13-2755 for the fee required under 37 C.F.R. 1.17(p).
- each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement.
- each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart application *and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the information disclosure statement.*
- no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated under 37 C.F.R. 1.56(c) more than three months prior to the filing of this Statement.

Respectfully submitted,

By: David A. Muthard

Attorney \_\_\_\_\_ For Applicant(s)

Req. No. 35,297

MERCK & CO., INC.

Patent Dept., RY60-30

P.O. Box 2000

Rahway, N.J. 07065-0907

(732)594-3903

Date: July 18, 2006

Date: July 10, 2000



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Paul J. Coleman, et al.	Art Unit:	<u>To be determined</u>
Serial No.:	10/567,676	Case No.:	21481YP
Filed:	February 9, 2006	Examiner:	<u>To be determined</u>
For:	MITOTIC KINESIN INHIBITORS		

Mail Stop: Amendment  
Commissioner of Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

EXPLANATION OF RELEVANCE OF NON-ENGLISH DOCUMENTS UNDER 37  
C.F.R. 1.98(a)(3)(i)

Sir:

Applicants respectfully note that two (2) of the documents listed on the USPTO 1449 form submitted herewith are not in the English language and a copy of an English translation of those documents are not within the possession, custody or control of Applicants, and, to the Applicants knowledge, are not readily available. Below is a concise explanation of the relevance of those non-English documents:

The French scientific publication by O. Yebdri and F. Texier (*Bull. Soc. Chim. Fr.*) discloses preparation of a series of 2,3-dihydro-4-phenyl pyrrole compounds having nitrile and ester disubstitution on the 3-position. The Yebdri publication also describes saponification of the ester to provide the corresponding 2,5-dihydropyrrole compound (see for instance compound 19). There is no disclosure in the Yebdri publication of a pharmaceutical use for the compounds disclosed therein.

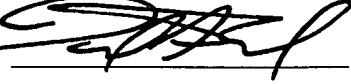
The French scientific publication by A. Ranjon (*Bull. Soc. Chim. Fr.*) discloses photooxidation reactions of polyphenyl imidazole and polyphenyl pyrrole compounds in which 2,5-endoperoxide derivatives are transient intermediates. The Ranjon publication also describes dihydroxypyrrrole intermediates in such reactions (see for instance compound 29). There is no disclosure in the Ranjon publication of a pharmaceutical use for the compounds disclosed therein.

The instant invention discloses certain substituted 2,4-diaryl-2,5-dihydropyrroles that are inhibitors of the mitotic kinesin KSP and are useful in the treatment of cancer.

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450, ON THE DATE APPEARING BELOW.

MERCK & CO., INC.

BY: 

DATE: 7/18/06

Respectfully submitted,

  
By: \_\_\_\_\_

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Date: July 18, 2006

Substitute for Form 1449A/PTO

(use as many sheets as necessary)

Sheet

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of

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Attorney Docket Number

21481 YP

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office	Number	Kind Code (if known)		
		PCT	WO 93/20099		Yamanouchi Pharm. Co., Ltd.	10/14/1993
		PCT	WO 98/06694		The DuPont Merck Pharm. Co.	02/19/1998
		PCT	WO 03/049527		Merck & Co., Inc.	06/19/2003
		PCT	WO 03/105855		Merck & Co., Inc.	12/24/2003
		PCT	WO 2004/037171		Merck & Co., Inc.	05/06/2004
		PCT	WO 03/106417		Merck & Co., Inc.	12/24/2003
		PCT	WO 2005/019206		Merck & Co., Inc.	03/03/2005
		PCT	WO 2005/019205		Merck & Co., Inc.	03/03/2005
		EPO	EP 0 418 845		Fujisawa Pharmaceutical Co., Ltd.	08/09/1995

Examiner Signature		Date Considered	
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with new communication to applicant.

SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Computer generated form "IDS Form" (IDS Folder), Merck & Co., Inc., 7/12/2005

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE**

**STATEMENT BY APPLICANT**

*(use as many sheets as necessary)*

Sheet

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of

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<b>COMPLETE IF KNOWN</b>	
Application Number	10/567,676
Filing Date	February 9, 2006
First Named Inventor	Paul J. Coleman
Group Art Unit	To be determined
Examiner Name	To be determined
Attorney Docket Number	21481YP

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No.	Include name of the author, title, date, page(s), volume-issue number(s) and place of publication.
		C. Sonesson, et al., J. Org. Chem. 1996, Vol. 61, pg. 4756-4763
		N. Iwasawa, et al., J. Org. Chem. 1998, Vol. 63, pg. 3164-3165
		N. Iwasawa, et al., J. Org. Chem. 1997, Vol. 62, pg. 1918-1919
		R. Mison, et al., J. Chem. Research(S), 1989, 126-127
		O. Yebdri, et al., Bulletin De La Societe Chimique de France, 1983, pg. 195-201
		A. Ranjon, Bulletin De La Societe Chimique de France, 1971, pg. 2068-2072
		M. Bujard, et al., Tetrahedron Letters, Vol. 40, 1999, pg. 8785-8788
		M. Carpes, et al., Synlett, No. 7, 2000, pg. 1037-1039
		A. Boukhari, et al., J. Cryst. Spect. Res., Vol. 19, Iss. 3, 1989, pg. 603-621
		C. Cox, et al., Bioorganic & Medicinal Chem Ltrs. Vol. 15, pgs. 2041-2045 (2005)
		W. Tao, Cell Cycle, Vol. 4(11), pgs. 1495-1499 (2005)
		K. D. Chu, et al., Proc. Am. Soc. Clin. Oncol., abstract 525, pg. 131 (2003)
		R. Sakowicz, et al., Cancer Research, Vol. 64, pgs. 3276-3280 (2004)
		W. Tao, et al., Cancer Cell, Vol. 8, pgs. 49-59 (2005)
		M. Fraley, et al., Bioorganic & Medicinal Chem Ltrs., Vol. 16, pgs. 1775-1779 (2006)

Examiner Signature	Date Considered
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<p>Substitute for form 1449B/PTO</p> <p><b>INFORMATION DISCLOSURE</b></p> <p><b>STATEMENT BY APPLICANT</b></p> <p><i>(use as many sheets as necessary)</i></p>		<b>COMPLETE IF KNOWN</b>	
		Application Number	10/567,676
		Filing Date	February 9, 2006
		First Named Inventor	Paul J. Coleman
		Group Art Unit	To be determined
		Examiner Name	To be determined
Sheet	3	of	3
		Attorney Docket Number	
		21481YP	

## NON PATENT LITERATURE DOCUMENTS

Examiner Signature		Date Considered	
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Computer generated form "IDS Form" (IDS Folder), Merck & Co., Inc., -7/12/2005